# Detailed Data Instructions for EPLACE AQ02 Non-Major Comprehensive Plan Application (CPA) Form-Crematory

This document is to be used by applicants and their consultants who are preparing the online Air Quality Non-Major Comprehensive Plan Approval Applications Crematories (hereafter referred to as AQ02-NMCPA Crematory). The document describes each of the data fields on the form and the information that is required to complete the form. The Instructions are in order of the steps that will be found in the On-Line form. For guidance on how to navigate through the form, or review and certify an application, please see materials provided at: <a href="http://mass.gov/dep/aq-cpacr">http://mass.gov/dep/aq-cpacr</a>

These forms have been designed to maximize the flexibility for the preparer to move from screen to screen as needed. As such, there is limited information on the screen that is marked with a red asterisk as "Required" before you move to the next screen. Just because a data field is not marked as "required", DO NOT assume it is not necessary for an administratively or technically complete application. Please complete all data fields to the fullest extent possible as applicable to your proposed project

## I. GENERAL

#### **Sharing an Application**

In most cases preparation of an AQ02 NMCPA- Crematory is a collaborative affair involving a number of people. In order to facilitate such collaboration, the first person who starts the application will receive an email with a PIN number. This person should forward the PIN number to other members of the team that will be working on the application. This includes the Massachusetts Registered Professional Engineer who will certify the application. The process of how to create an account, share and activate an application PIN is detailed in the ePLACE Quick Guide found at <a href="http://www.mass.gov/eea/docs/dep/service/approvals/eplace-quickguide.pdf">http://www.mass.gov/eea/docs/dep/service/approvals/eplace-quickguide.pdf</a>

## **Navigating Tables**

This application requires the completion of a number of tables. All tables are filled out the same way.

In order to add an item to a table, click "Add a Row." If you want to add multiple rows at once, click the down arrow next to "Add a Row" and choose how many rows you want to add. A window will open with space for all requested information. Please provide answers to the applicable questions and click "Submit."

If you need to edit any existing rows in the table, check the box next to that row and click "Edit Selected." A window opens with the information from that row. Edit the information and click "Submit."

If you need to delete an existing row, check the box next to that row and click "Delete Selected."

#### **Appending Supplemental Forms**

The AQ02 NMCPA Crematory allows the applicant to include such supplemental forms as required to more fully describe a proposed pollution control device, the analysis of Best Available Control Technology (BACT) or the PE and Applicant Certification. This process of appending supplemental forms starts in the main or "parent" application form. There you will identify which supplemental forms you intend to attach. Once the "Parent" form is completed and reviewed, the applicant will be directed to a page that lists the selected supplemental forms. Click "Start application" to begin completing a supplemental form.

If you wish to change the list of supplemental forms, add a second form of the same type or delete a form, you must return to the "parent" application and change your answers in the supplemental form table.

Once the last Supplemental form is started, a new supplemental form is added to the list. This is the certification form that must be completed by the Massachusetts registered professional Engineer and the Applicant or Responsible Official. See "Instructions & FAQ" at <a href="http://mass.gov/dep/aq-cpacr">http://mass.gov/dep/aq-cpacr</a> for details on how to complete the certification.

## II. COMPLETING THE FORM

## **STEP 1 FACILITY**

## **Facility Information**

To identify a facility for this application, SEARCH the list of available facilities first. It is best to enter the address of the facility (rather than name). Based on your search criteria a list will be returned. Select from the list or click "Cancel" to search again. You can search on any string of text. No wild cards are required. You can also search using the DEP Facility ID.

If you cannot find your facility, you can add a facility. If the new facility has the same address as an existing facility, you will get a message asking if you want to use the existing facility. If you do not want to use this facility, click "No" then click "Clear" and re-enter the new facility with some unique location in the Street Name 2 field (Building number, Suite, Floor, etc.).

To add a new facility the following information will be required:

| Data Field in Table | Description or Notes  |
|---------------------|---|
| Facility Name       | The name of the facility that is the subject of the plan      |
|                     | approval  |
| Street #            | This is the location of the facility – not a mailing address  |
| Street Name         | This is the location of the facility – not a mailing address  |
| Street Name 2       | If needed, a unique identifier to differentiate this facility |
| Street Name 2       | from another at the same address.                             |
| City                | This is the location of the facility – not a mailing address  |
| Zip code            | This is the location of the facility – not a mailing address  |
| Latitude            | Latitude of the facility                                      |
| Longitude           | Longitude of the facility                                     |
| DEP Facility ID     | The account number of the facility in the MassDEP FMF         |
|                     | system (optional)   |
| AQ ID               | 7 digit ID number for Air Quality facilities (Optional)       |

Once this information has been entered for the new facility, do not select the search or clear buttons. Move on to the Facility Owner Information section.

# **Facility Owner Information**

If this is the Owner's first application through ePLACE, you will need to enter Owner information for the facility. 1

To add owner information, click the "Add New" button. At least one owner is required to be entered. To remove an owner, click "Delete" next to that owner in the Owner Information table.

| Data Field in Table | Description or Notes                                     |
|---------------------|--|
| Individual/         | Indicate if the facility owner is an individual or an    |
| Organization        | organization   |
| Organization Name   | Name if organization owner                               |
| Individual Owner    | Name if individual owner                                 |
| Name                | ivallie ii iliulviuuai owilei                            |
| Contact Person      | The person who is the Owner's Contact                    |
| Telephone Number    | Contact Phone number                                     |
| Email               | Contact Email  |
| PO Box/Address      | Street number, street name, or PO Box as mailing address |
|                     | for the Organization Owner                               |
| Country             | Pick from drop down list                                 |
| State               | Pick from drop down list                                 |
| Zip Code            | USPS zip code  |

<sup>&</sup>lt;sup>1</sup> For subsequent applications you should be able to "look up" the owner information you submitted with your first application.

#### **STEP 2: APPLICATION INFORMATION**

#### **Facility Related Information**

Provide either the Standard Industrial Classification (SIC) Code or the North American Industry Classification System (NAICS) Code for the facility. SIC and NAICS Codes are used to classify business and other establishments. More information about SIC and NAICS Codes can be found at: https://www.osha.gov/pls/imis/sicsearch.html and https://www.census.gov/eos/www/naics/index.html

| Data Field in Table                | Description or Notes                         |
|------------------------------------|--|
| Standard Industrial Classification | 7261 is the SIC code for Funeral Service and |
| (SIC) Code                         | Crematories                                  |
| North American Industry            |  |
| Classification System (NAICS)      | The NAICS code for Crematories is 812220     |
| Code                               |  |

#### **Project Coordination**

Indicate if this project is subject to MEPA Review. If "yes," please provide the EEA File Number. MEPA is the Massachusetts Environmental Policy Act and requires the study of the environmental consequences of permits issued by Massachusetts state agencies. EEA Numbers are assigned when an Environmental Notification Form is submitted to the MEPA unit. You can find more information about MEPA at: <a href="http://www.mass.gov/eea/agencies/mepa/">http://www.mass.gov/eea/agencies/mepa/</a>

Indicate if this project is subject to review by the Energy Facility Siting Board. If yes, please provide your Docket #. The Siting Board licenses construction of major energy infrastructure such as power plants and natural gas pipelines. You can find more information about the Energy Facility Siting Board at: <a href="http://www.mass.gov/eea/energy-utilities-clean-tech/energy-facilities-siting-board/">http://www.mass.gov/eea/energy-utilities-clean-tech/energy-facilities-siting-board/</a>

| Data Field in Table | Description or Notes   |
|---------------------|--|
| EEA Number          | Number assigned to projects when an ENF form is submitted                            |
| Docket #            | Number assigned to projects submitted to the Energy Facility Siting board for review |

# **Existing Approvals**

Please provide a complete list of all the Air Quality Plan Approvals, Emission Cap Notifications, 310 CMR 7.26 Installation Certifications, and facility-wide emission caps. Add a row to the table for each one of these that you have, and provide the requested information in the window that opens. If this application concerns replacing approved equipment, please list each plan approval associated with that equipment.

If you have a Final Operating Permit for this facility, leave the table blank.

| Data Field in Table | Description or Notes   |
|---------------------|--|
| Approval Type       | Dropdown menu listing the relevant approval types            |
| Other Approval      | Use to specify an approval type not in the approval type     |
| Туре                | dropdown menu  |
| DEP Approval # or   | The approval or transmittal # of your approval type, if the  |
| Transmittal #       | approval has one   |
|                     | Choose the contaminant for this approval from the            |
| Air Contaminant     | dropdown menu of air pollutants regulated by plan            |
|                     | approvals  |
| Specify             | If you chose "Other" for Air Contaminant, indicate the air   |
| Specify             | contaminant  |
| Existing Facility-  |  |
| Wide Emission       | For any existing caps, indicate the pollutant and the value  |
| Cap(s) Per          | for that cap   |
| Consecutive 12      | This is a numeric field. If there is no cap, leave the field |
| month Time Period   | blank.   |
| (Tons):             |  |

## **Proposed Project Description**

Give a short description of the proposed project. Make sure to include relevant parameters and air pollution controls. Note that you can only receive a Plan Approval for an Emission Unit for which MassDEP determines that the Best Available Control Technology (BACT) is being used. You can learn more about BACT at: <a href="http://www.mass.gov/eea/agencies/massdep/air/approvals/best-available-control-technology-bact.html">http://www.mass.gov/eea/agencies/massdep/air/approvals/best-available-control-technology-bact.html</a>

Answer each of the questions about the project and equipment. If you indicate that you will attach a more detailed project description, you will be able to attach that description in the "Documents" section of your application. Also note that if you indicate that you are increasing an existing facility-wide emission cap or modifying previously approved equipment, you will need to provide a corresponding description.

In this section, you will also indicate what type of remains the crematory will handle (Human or animal), and if the proposal is subject to any emissions standards under federal regulations 40 CFR 60: New Source Performance Standards (NSPS) or 40 CFR 61 or 63, National Emission Standards for Hazardous Air Pollutants (NESHAPS).

## **Federal Applicability**

If you answered "Yes" to the previous questions on Federal Regulation Applicability, you must complete the next table to list all requirements of the NSPS (40 CFR 60) or NESHAPS (40 CFR 61 and 63) that apply to the equipment or operations proposed in the Plan Application. Provide the Emission Unit #, and the

applicable federal Part and Subpart. Lists of subparts for NSPS and NESHAPS can be reviewed at: <a href="https://www.epa.gov/stationary-sources-air-pollution/new-source-performance-standards">https://www.epa.gov/stationary-sources-air-pollution/national-emission-standards-hazardous-air-pollutants-neshap-9</a>

Please list any other applicable state or federal air pollution control programs requirements that are not listed earlier in the application. These can include but are not limited to Acid Rain, Greenhouse Gas Emissions Reporting, refrigerant leaks, or accidental release prevention program rules.

| Data Field in Table | Description or Notes  |
|---------------------|---|
| Emission Unit #     | The number that describes the emission unit subject to the    |
|                     | requirement   |
| Part                | Dropdown menu listing the applicable Parts of the federal     |
|                     | standard, 40 CFR  |
| Sub Part            | Indicate the relevant subpart of the federal standard, 40 CFR |

## **Proposed Project Details: Equipment**

Give the details for all the proposed equipment covered by this Plan Application . You must add 1 row to the table for each piece of equipment or regulated activity. You can group like pieces of equipment into a single emission unit but each piece of equipment in a group needs to be identical otherwise they should be separated into individual emission units.

| Data Field in Table                              | Description or Notes  |
|--|---|
| Emission Unit #                                  | The number that describes the emission unit   |
| New or Modified                                  | Indicate if this equipment is new equipment, or existing equipment that is being modified                                     |
| Equipment Type                                   | Choose the kind of equipment for this emission unit from the dropdown menu. The only options are "Crematory unit" and "Other" |
| Specify if "Other"                               | If you choose an equipment type of "Other", indicate the kind of equipment  |
| Manufacturer and<br>Model number of<br>Equipment | The Manufacturer and model of the equipment   |
| Maximum<br>Cremations Rate                       | Max Cremation Rate is the maximum single load capacity of the unit as provided by the manufacturer in pounds.                 |
| Fuels used                                       | Choice of "Primary" and "Back up" . If you use two or more fuels you will need to add rows for each fuel used                 |
| Fuel Type  | Choices include natural gas and "Other"   |
| Specify  | If "Other" is selected then you will be asked to specify what the fuel is in the next field                                   |

The next few tables are used to describe the crematory unit in detail. The Emission Unit numbers are transferred into the tables from the Crematory Equipment table. Most of the information is available from the manufactures' design specification documents. Click the box to the left of the EU# and click the "Edit" button to add the required information. You cannot add rows to this table without adding a new emission unit in the previous Proposed Project Detail Table.

## **Materials of Construction**

| Data Field in Table                   | Description or Notes  |
|---------------------------------------|---|
| Emission Unit #                       | Pre-loaded  |
| Cremation Unit<br>Shell               | The material used on the exterior of the cremation unit (e.g. steel, brick).  |
| Refractory in<br>Primary Chamber      | Indicate what type of refractory is used in the primary chamber   |
| Thickness                             | Indicate the thickness of the refractory material in the primary chamber in inches. This is a numeric field only.   |
| Refractory in<br>Secondary<br>Chamber | Indicate what type of refractory is used in the secondary chamber   |
| Thickness                             | Indicate the thickness of the refractory material in the secondary chamber in inches. This is a numeric field only. |
| Refractory in Stack                   | Indicate what type of refractory is used in the stack   |
| Thickness                             | Indicate the thickness of the refractory material in the stack in inches. This is a numeric field only.             |
| Stack Shell                           | Indicate the material used on the exterior of the stack.  |

# **Primary Chamber Dimensions**

| Data Field in Table          | Description or Notes  |
|------------------------------|---|
| Emission Unit #              | Pre-loaded  |
| Length of Primary<br>Chamber | Length of chamber in inches. Numeric field only   |
| Height of Primary<br>Chamber | Height of chamber in inches. Numeric field only   |
| Width of Primary<br>Chamber  | Width of chamber in inches. Numeric field only  |
| Cross sectional<br>Shape     | Pick from drop down list; Valid values include rectangular, round, square and octagonal |
| Total enclosed volume        | Volume in cubic feet.   |

# **Secondary Chamber Dimensions**

| Data Field in Table          | Description or Notes  |
|------------------------------|---|
| Emission Unit #              | Pre-loaded  |
| Length of Primary<br>Chamber | Length of chamber in inches. Numeric field only   |
| Height of Primary<br>Chamber | Height of chamber in inches. Numeric field only   |
| Width of Primary<br>Chamber  | Width of chamber in inches. Numeric field only  |
| Cross sectional<br>Shape     | Pick from drop down list; Valid values include rectangular, round, square and octagonal |
| Total enclosed volume        | Volume in cubic feet.   |

# **Capacity Information**

| Data Field in Table | Description or Notes                                     |
|---------------------|--|
| Emission Unit #     | Pre-loaded   |
| Total Area          | This is the total combustion area in square feet         |
| Point of            | This is the location where the total are was determined. |
| Measurement         | Choose between at the grate or in the hearth.            |
| Charging Capacity   | The maximum charging capacity of the unit in pounds per  |
|                     | hour   |

# **Cremation Unit Burner Details**

Provide information for each burner associated with your Crematory Emission Unit #s. The table prepopulates rows for Cremation Units already listed in your application. Start by editing these rows, and then add additional rows for any remaining burners.

| Data Field in Table | Description or Notes  |
|---------------------|---|
| Emission Unit #     | Pre-populated or added new                                  |
|                     | Select Primary, Secondary or Tertiary. You can only select  |
| Chamber Type        | one for each row. You will need to add a row and repeat the |
|                     | EU number to pick a second chamber type.                    |
| Burner              | The name of the Burner Manufacturer                         |
| Manufacture         |   |
| Burner Model No     | The model number or equivalent for each burner              |
| Number of burners   | Numeric only  |
| in the chamber      |   |
| Maximum Fuel        | This is the maximum Fuel Firing Pate with all hurners       |
| Firing Rate (all    | This is the maximum Fuel Firing Rate with all burners       |
| burners)            | operating in million BTU per hour (MMBtu/hr.)               |

| Data Field in Table                        | Description or Notes  |
|--|---|
| Maximum<br>Theoretical Air<br>Requirements | The maximum air requirements per manufacturer specification in standard cubic feet per minute |
| Percent excess air at 100% rating          | Number only   |
| Turndown ratio                             | Text field to indicate what the manufacturer specifies as the max turndown ratio              |
| Burner Modulation                          | Select from a pick list. Valid values include on/off, full                                    |
| Control                                    | automatic, low-high fire and manual   |

## **Controls, Interlocks and Operating Conditions**

The next section (Pages 6 of 14) asks the applicant to describe how the crematory unit is controlled, control devices are proposed and the operating temperatures and retention time for the unit. The section has both questions and tables.

Text boxes are provided to address the first few questions. There is sufficient space provided for 3-4 moderately sized paragraphs for each question. The questions ask for description of:

- Controls to prevent the unit from being charged before reaching required temperatures
- Control on the heat release rate in the primary chamber
- Controls for shutdown of the secondary chamber
- The Draft Control system

A response for each question is required. If not applicable, the response should be "not applicable".

Tables are used to gather information on additional operating conditions and equipment.

## **Pyrometers and Timing Devices**

List each Pyrometer or Timing Device for each proposed unit. Add a row to list multiple devices for each unit.

| Data Field in Table | Description or Notes                                  |
|---------------------|---|
| Emission Unit #     | Pre-populated   |
| Manufacturer        | Manufacturer name for each pyrometer or timing device |
| Model No            | The model number or equivalent for each pyrometer or  |
|                     | timing device   |
| Location            | Brief description of where the device is located      |

The next few tables are used to describe the operating conditions for the crematory unit. The Emission Unit numbers are transferred into the tables from the Crematory Equipment table. Click the box to the

left of the EU# and click the "Edit" button to add the required information. You cannot add rows to this table without adding a new emission unit in the previous Proposed Project Detail Table.

## **Retention Time in Primary Chamber**

Answer the questions / complete the table for each proposed emission unit. Click the box to the left of the Emission Unit and Select "Edit Selected" to begin.

| Data Field in Table  | Description or Notes   |
|--|--|
| Emission Unit #  | Pre-populated  |
| Average Retention time during steady state operations                | Average retention time in primary chamber (in seconds)   |
| Temperature during average retention time                            | Primary Chamber temperature during average retention time (in degrees F)   |
| Minimum retention time during minimum fee/ burner firing combination | The minimum retention time in the primary chamber (in seconds) when the fuel and material loading is at its maximum. |
| Temperature during minimum retention time                            | Primary Chamber temperature during minimum retention time (in degrees F)   |

## **Retention Time in Secondary Chamber**

Answer the questions / complete the table for each proposed emission unit. Click the box to the left of the Emission Unit and Select "Edit Selected" to begin.

| Data Field in Table   | Description or Notes  |
|---|---|
| Emission Unit #   | Pre-populated   |
| Does the secondary burner remain on for the duration of the burn?               | Yes or No   |
| If no, what is the low set point of the secondary burner                        | The low temperature at which the secondary burner will fire to maintain temperature in the secondary chamber (in degrees F)       |
| If no, what is the high set point of the secondary burner                       | The high temperature at which the secondary burner will shut down to maintain temperature in the secondary chamber (in degrees F) |
| Temperature maintained in the secondary chamber just prior to material charging | Secondary Chamber temperature just prior to charging (in degrees F)   |

## **Temperature Operating Ranges**

Answer the questions / complete the table for each proposed emission unit. Click the box to the left of the Emission Unit and Select "Edit Selected" to begin.

| Data Field in Table   | Description or Notes                                  |
|-----------------------|---|
| Emission Unit #       | Pre-populated   |
| Primary Chamber       | The low end of the temperature range in the primary   |
| operating range- Low  | chamber when the unit is operating in degrees         |
| End                   | Fahrenheit  |
| Primary Chamber       | The high end of the temperature range in the primary  |
| operating range- High | chamber when the unit is operating in degrees         |
| End                   | Fahrenheit  |
| Secondary Chamber     | The low end of the temperature range in the secondary |
| operating range- Low  | chamber when the unit is operating in degrees         |
| End                   | Fahrenheit  |
| Secondary Chamber     | The high end of the temperature range in the          |
| operating range- High | secondary chamber when the unit is operating in       |
| End                   | degrees Fahrenheit                                    |

The description of operating conditions continues on page 7 of 14 with information collected in the following tables:

## **Air Handling System**

Complete the table by entering the required information for each fan in each emission unit proposed. Click "add a row" to enter a second or third fan for each emission unit. You must also attach to this application the manufacturers fan performance curve or rating curve with the operating point indicated.

| Data Field in Table   | Description or Notes                           |
|-----------------------|--|
| Emission Unit #       | Enter the emission unit number                 |
| Total Fan Capacity in | Fan capacity in standard cubic feet per minute |
| SCF per minute        | according to manufactures' information         |
| Fan Make              | The manufacturer of the fan                    |
| Fan Model             | The manufacturer's model for the fan           |

## **Proposed Maximum Cremation Schedule**

Answer the questions / complete the table for each proposed emission unit. Click the box to the left of the Emission Unit and Select "Edit Selected" to begin.

| Data Field in Table    | Description or Notes                                   |
|------------------------|--|
| Emission Unit #        | Pre-populated  |
| Proposed Maximum       | Enter the proposed maximum number of cremations        |
| Cremations per day     | per day  |
| Proposed days or hours | Enter either the number of days or number of hours of  |
| of operation per week  | operation proposed per week                            |
| Associated time period | Select "days" or "hours" as the time period associated |
| Associated time period | with the previously entered number                     |
| Proposed maximum       | Enter the maximum number of cremations proposed        |
| number of cremations   | per month  |
| per month              | per monen  |
| Proposed maximum       |  |
| number of cremations   | Enter the maximum number of cremations proposed        |
| per consecutive 12-    | per consecutive 12 month period                        |
| month period           |  |

# Pollution Control Device (PCD) Equipment Info

Indicate if you are proposing to add an air pollution control device to the proposed cremation units.

If you indicate "yes", you will be asked to complete a table that describes the pollution control device (PCD) proposed. Click "Add a Row" to begin.

| Data Field in Table               | Description or Notes   |
|-----------------------------------|--|
| PCD#                              | The number assigned to the pollution control device (PCD)  |
| PCD Description                   | Provide a brief description of what the PCD is   |
| New or Existing?                  | Indicate if this is a new PCD or if you will be connecting the new Emission unit(s) to an existing PCD   |
| Emission Unit # served by the PCD | Indicate which emission unit(s) will be connected to the PCD   |
| Stack #                           | The number assigned to the stack that the PCD discharges through   |
| Air Contaminant                   | Pick the air contaminant is to be controlled by this PCD. The pick list includes 10 pollutants. If the PCD is used to control more than one pollutant, you will need to add a row and repeat the previous entries for each pollutant selected (only one pollutant per row) |
| Specify                           | If the pollutant selected is "Other" or "Single HAP", the details should be provided in the specify field  |
| Overall control efficiency        | This is the overall control efficiency (OCE) of the PCD which is the product of pollutant capture efficiency times pollutant control efficiency (e.g. 100% capture and 98% control = OCE of 98%) expressed in % by weight.   |

Once this table is complete, the project configuration table on page 9 of 14 is populated. You cannot edit this table. Check to make sure the table is complete and if edits or corrections are needed, go back to page 8 and make corrections on the PCD Equipment table

Click "Continue Application" to move on

#### **Stack Information**

This table is used to summarize the stack configuration at your facility. If this project has only emissions vented through general room ventilation then no stack information is required and this table can be left blank. Otherwise, you need to have 1 row in the Stack Information table for each stack.

Stacks should be designed with several considerations. They should be constructed to prevent emissions downwash and adverse impacts on sensitive receptors, nearby structures and terrain. They should be vertical and not impede vertical gas flow.

| Data Field in Table                            | Description or Notes   |
|--|--|
| Stack #  | The number that describes the stack  |
| Stack height above ground (feet)               | How high the top of the stack is from the ground, in feet                    |
| Stack height above roof (feet)                 | How high the top of the stack is from the roof, in feet                      |
| Stack exit diameter (inches)                   | The diameter of the stack at the top, in inches                              |
| Exhaust gas exit<br>temperature<br>(degrees F) | The temperature of gas when it leaves the stack, in degrees F                |
| Exhaust gas<br>velocity range<br>(CFM)         | The range of speed with which gas leaves the stack, in cubic feet per minute |
| Stack liner material                           | The material that lines the interior of the stack                            |

#### **BACT Information**

Indicate if this project is proposing a Top-Case BACT. BACT stands for Best Available Control Technology and must be used for new or substantially reconstructed major sources of air emissions. A Top-Case BACT lets you use past BACT determinations for similar emission units/processes to help define the BACT for your proposal. You can find more information on BACT Emissions at: <a href="http://www.mass.gov/eea/agencies/massdep/air/approvals/best-available-control-technology-">http://www.mass.gov/eea/agencies/massdep/air/approvals/best-available-control-technology-</a>

http://www.mass.gov/eea/agencies/massdep/air/approvais/best-available-control-technology-bact.html

## **BACT Emissions**

Provide the BACT emission rate proposed for each unit in the table provided. All fields are required.

| Data Field in Table | Description or Notes  |
|---------------------|---|
| Emission Unit #     | The number assigned to the emission unit                    |
| PM/PM10/PM2.5       | The proposed emission rate of particulate matter expressed  |
|                     | in grains per dry standard cubic foot at 7% oxygen and 100% |
|                     | Rated Capacity  |
| SO2                 | The proposed emission rate of sulfur dioxide in parts per   |
|                     | million by volume (ppmv) corrected to 7% oxygen             |
| NOx                 | The proposed emission rate of oxides of nitrogen in parts   |
|                     | per million by volume (ppmv) corrected to 7% oxygen         |
| voc                 | The proposed emission rate of volatile organic compounds in |
|                     | parts per million by volume (ppmv) corrected to 7% oxygen   |
| со                  | The proposed emission rate of carbon monoxide in parts      |
|                     | per million by volume (ppmv) corrected to 7% oxygen         |

## **Proposed Material Inputs**

Provide the proposed material inputs by waste type. All fields are required.

| Data Field in Table | Description or Notes   |
|---------------------|--|
| Emission Unit #     | The number assigned to the emission unit   |
| Type O Waste        | Type O Waste in tons per consecutive 12-month period.  Type O waste is mainly comprised of plastics. NOTE: No chlorinated plastics may be used in any containers, pouches or appliances to the cremated. |
| Type 4 Waste        | Type 4 waste in tons per consecutive 12-month period. Type 4 waste is pathological waste including human and animal remains.   |
| Gaseous Fuel        | Fuel used to attain and maintain cremation temperatures reported in Million Cubic Feet per consecutive 12 month period.  |

Provide the proposed short and long term emission from the new and/or modified equipment. Short term limits are monthly. Long term limits are for each consecutive 12 month period (e.g. January to December, March to the following February, etc.)

Proposed Monthly Emissions as well as consecutive 12-month period emissions must be provided for the following pollutants:

- Particulate Matter (PM/PM10/PM2.5)
- Sulfur Dioxide (SO2)
- Oxides of Nitrogen (NOx)

- Volatile Organic Compounds (VOC
- Carbon Monoxide (CO)

## **External Noise Information**

Indicate if there is external sound generating equipment associated with this project.

Indicate if you have or plan to perform a sound study. If yes, please attach study protocol and the results of any completed studies.

## **Sound Suppression Equipment**

The Equipment table is used to document information about sound suppression equipment to be used at the facility. Please provide information about the kind of equipment and indicate the Emission Unit it is associated with.

| Data Field in Table | Description or Notes                                  |
|---------------------|---|
| Emission Unit #     | The number assigned to the emission unit              |
| (EU#)               | The number assigned to the emission unit              |
| Type of Sound       |   |
| Suppression         | List the kind of sound equipment to be used, such as  |
| Equipment           | mufflers, enclosures or administrative controls.      |
| (Measures?)         |   |
| Equipment           | The name of the manufacturer of the sound suppression |
| Manufacturer        | equipment   |
| Equipment Model     | The model number of the sound suppression equipment   |
| No                  | The moder number of the sound suppression equipment   |

## Other Potential Impacts – Proposed Project Potential

Provide a description of the visible and odor emissions from this project and how they will be controlled.

## **Monitoring and Recordkeeping**

Starting on page 13 of 14, the applicant should summarize the details of the proposed project's monitoring and record keeping procedures.

Opacity Monitoring- Indicate what is used for opacity monitoring

| Data Field in Table | Description or Notes |
|---------------------|----------------------|
| Emission Unit #     | Pre-populated        |
| (EU#)               | ' '                  |
| Full Scale Opacity  | Yes or No            |
| Monitor             | 163 01 110           |
| Continuous opacity  | Yes or No            |
| Monitor             | 163 01 110           |
| Audible Alarm to    | Yes or No            |
| indicate opacity    |                      |
| problems?           |                      |
| Visible Alarm to    | Yes or No            |
| indicate opacity    |                      |
| Problems?           |                      |

Temperature Monitoring Equipment- Indicate what is used for monitoring operating temperatures

| Data Field in Table                | Description or Notes   |
|------------------------------------|--|
| Emission Unit # (EU#)              | Pre-populated  |
| Temperature                        | Manage Ma  |
| Monitoring for<br>Primary Chamber? | Yes or No  |
| Temperature                        |  |
| Monitoring for exit                | Yes or No  |
| from Secondary                     | 163 61 116   |
| Chamber?                           |  |
| Continuous                         | Yes or No  |
| Temperature                        |  |
| recorder for                       |  |
| primary chamber?                   |  |
| Make/ Model –                      | If the answer to the previous question is "yes" indicate the |
| Continuous                         | manufacturer's make and model of the continuous              |
| temperature                        | temperature recorder. If the answer to the previous          |
| recorder for                       | questions was "no", indicate "not applicable"                |
| primary chamber                    |  |
| Continuous                         | Yes or No  |
| Temperature                        |  |
| recorder for exit                  |  |
| from Secondary                     |  |
| Chamber ?                          |  |

| Data Field in Table | Description or Notes   |
|---------------------|--|
| Make/ Model –       | If the answer to the previous question is "yes" indicate the |
| Continuous          | manufacturer's make and model of the continuous              |
| temperature         | temperature recorder. If the answer to the previous          |
| recorder for exit   | questions was "no", indicate "not applicable"                |
| from Secondary      |  |
| Chamber             |  |

#### Other Monitoring and Recordkeeping

Summarize any other forms of monitoring and recordkeeping that is proposed. This includes but is not limited to monitoring/ tracking the number of cremations per day/ week/ month, the materials loading rate and operating hours.

| Data Field in Table                     | Description or Notes   |
|---|--|
| Emission Unit # (EU#)                   | The number that describes the emission unit  |
| Operational<br>Monitoring:<br>Materials | Choose from a pick list that includes # Cremations, days of operation, Amount of Gaseous Fuel, amount of Type O waste and Amount of Type 4 Waste. Add a row for each option. |
| Method of                               | Select "manual Log" or "Other". If "Other" is selected, a new  |
| Monitoring                              | box will open where you can describe the method  |
| Record Keeping<br>Procedures            | Select Electronic or Manual  |
| Frequency of Data<br>Record             | Select from the following options: Continuous, Hourly, Daily, Monthly, Annual and Other. If "Other" is selected, a new box will open where you can the frequency in hours    |

#### **Energy Evaluation Survey**

The energy evaluation survey is a series of 10 questions about energy use at your facility. The questions ask if an audit was conducted, what it found and what effect it will have on your project. It also asks about energy conservation and improvements in energy use. You must indicate "Yes" or "No" for each question.

## Select Applicable Supplemental Form(s) - Equipment Details

The Equipment Details table seeks a list of the supplemental forms that will be attached to your application. You must have a complete row for each supplemental document. Supplemental forms are required for each proposed air pollution control device at your facility.

| Data Field in Table | Description or Notes                                       |
|---------------------|--|
| Equipment Type      | Choose the kind of equipment from the list there are four  |
|                     | types available: Cyclone or Inertial Separator, Wet or Dry |
|                     | Scrubber, Fabric Filter or Baghouse and Electrostatic      |
|                     | Precipitator   |
| PCD ID #:           | The ID number of the PCD associated with this piece of     |
|                     | equipment  |

# **STOP**

## **STEP 3: DOCUMENTS**

The document section is where the applicant will attach documents to support the application. The "Documents" box gives a list of the required documents, such as the Equipment Manufactures' Specifications, copies of previous plan approvals or an expanded description of your proposed modifications. You can also attach optional documents if they will improve the completeness of the application.

In order to attach a document, click the browse button. A pop-up box opens. Click "Browse" again in the pop-up box and you can search your computer for the document you want to attach. You can select multiple documents at once. Once you have attached the document(s), click "Continue" to return to the main screen.

The maximum file size is 50 MB. The file name should not exceed 75 characters in length.

On the main screen you will be asked to identify the attachment type (pick from a drop down list) and provide a brief description of the attachment. The description you enter cannot exceed 50 characters in length.

Once this is done, click "Save." It may take a few moments for the documents to load. The "Latest Update" column will say "pending" while the file is loading. If you have attached the wrong document or wish to change attachments, click on the "Actions" link next to the document and select "Delete." To view the attached document, click on the document name.

#### **STEP 4: SPECIAL FEES**

310 CMR 4.00 identifies certain circumstances where special fees are applied. Most applicants will not be subject to special fees. If you are, pick the applicable fee type and provide supporting information on this page.

#### **STEP 5: APPLICANTS & CONTRIBUTORS**

This page is where the "Responsible Official" (hereafter called the signatory) for the application is identified. You will NOT enter a name (unless the person filling out the application is the signatory). First you will be asked to fill in the company name, pick the appropriate organization type (LLC, Corporation, and Sole Proprietorship). This is called "Source of Signatory Authority." Then pick the appropriate title or position of the person who will be the signatory.

The Signatory or Responsible Official must create an account in ePLACE and access the application to submit it. No other person can submit the application. When the signatory logs into the application, their name as provided in their account information will show up in the box labelled "Applicant Information."

## **STEP 6: REVIEW & SUBMITTAL**

Review all of the entries you have made in the application. If there are corrections to be made, click the "Edit Application" button at the top of the page and make the edits. If you wish to share a paper copy of the application with a client you can print screens from the review page. You can also instruct your client to log into the application and review the document on the review screen.

See separate instruction on how to share a document using the PIN number.

The legal Applicant MUST be logged into the application in order to submit it. As previously indicated when the signatory logs into the application, their name as provided in their account information will show up in the box labelled "Applicant Information." This person should scroll to the bottom of the Review page. Read the Certification language provided; click the box agreeing to the certification, and click "Continue." The application date will be inserted when the box is checked.

## **Step 7: AUTHORIZATION FORMS**

This section of the application lists the supplemental forms that must be completed. The supplemental forms you need to complete will be determined by your answers earlier in the application process. Some of these forms will indicate that a Professional Engineer needs to certify them. For each form that you wish to complete, click "Start Application" then select "Start at the beginning" to start the form.

The process of moving through any of these forms will be the same as for the previous parts of the application. If you need to leave your application, you can save your work by clicking "Save and resume later." Each of the forms asks for technical details about the pollution control device such as size, airflows and control efficiencies. Most of the required information is available from the device manufacturer.

At the end of each pollution control device supplemental form there is a review section with the opportunity to edit you entries on the form.

Once the last pollution control device form is completed, a Certification Form is presented. This for will be used by the Massachusetts Registered Professional Engineer and the Applicant (Responsible Official) to certify the entire application. <a href="VERY IMPORTANT!!">VERY IMPORTANT!!</a> Separate instructions are available to walk the applicant and PE through the final review. Review the instructions for Certifications to see how to share the application with a professional engineer and how the Professional Engineer will share the application with the Applicant or Responsible Official for final submittal.

#### **STEP 8: PAY FEES**

The fee for this application varies with exactly which application you submit. The fee amounts are:

• \$2,370 for Non-Major Comprehensive Plan Approvals for Crematory Units

You can find more details on permit application fees at: http://www.mass.gov/eea/docs/dep/service/approvals/permitfees.pdf

Payment may be made of electronic check or credit card for a nominal processing fee. The electronic check fee is \$0.35 per transaction. Credit card payments are 2.35% per transaction. Clicking on the PAY ONLINE button will bring you to the secure online payments portal. Once you have made payment, you will be returned to your application for submittal.

Payment may also be made by mail. However, review of your permit will not begin until payment is received. By clicking on the Pay by Mail button, you will have submitted your application. You will receive a notification email with the location and address to send your payment. That information is also available in the instructions for this authorization.

#### **AFTER SUBMITTAL**

Approximately five minutes after submitting the application, the applicant will get a copy of the application called a "Proof of Record" or POR. The POR and application attachments also appear on the EEA Public Access Portal. The applicant can check the progress of the review by logging into ePLACE and looking at the application line item on the "My Records" page.

#### **ADDITIONAL HELP**

For technical assistance in using this web application, please call the ePLACE Help Desk Team at (844) 733-7522 or (844) 73-ePLAC between the hours of 7:30 AM-5:00 PM Monday-Friday, with the exception of all Commonwealth and Federally observed holidays. If you prefer, you can also e-mail us at <a href="mailto:ePLACE helpdesk@state.ma.us">ePLACE helpdesk@state.ma.us</a>. For assistance with non-technical questions, please contact MassDEP's Air Permitting Regional Office Contacts. The following link provides contact information: <a href="http://www.mass.gov/eea/agencies/massdep/air/approvals/massdep-regional-contacts-for-air-permits-and-approvals.html">http://www.mass.gov/eea/agencies/massdep/air/approvals/massdep-regional-contacts-for-air-permits-and-approvals.html</a>